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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,152	02/27/2004	Motokazu Yasui	43780.011401	8994

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EXAMINER
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NGUYEN, ANTHONY H

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/789,152

Applicant(s)

YASUI ET AL.

Examiner

Anthony H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) 13-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-12 and 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/21/2006</u> .                                               | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Newly submitted claims 13-17 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The invention as recited in new claims 13-17 and the invention as claimed in the amended claims 1,3 and new claims 5-12 and 18-21 are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process of double sided printing as claimed can be practiced by another and materially different apparatus such as a thermal printing press or by hand.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 13-17 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the controller which is optionally connected to the sensor (claim 7), the portion of the reversing path being disposed away from the

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substantially horizontal paper path in a vertical direction towards the tray (claims 5, 8) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 5-12 are objected to because it is unclear how a roller can reverse an orientation of the sheet conveyed by the pickup roller (claim 5 line 5). Also, it is unclear how the controller can be configured to hold at least the portion of the sheet having wet ink outside the inkjet printing apparatus (claims 7-10).

To the extent the claims are positively recite structure, it appears that the following prior art rejection is proper.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the specification, as original filed, does not provide support for the “roller which reverses an orientation of the sheet conveyed by the pickup roller and transports the sheet towards the inkjet head” (claim 5 lines 5 and 6).

***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3, 5 and 18-21 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Konishi (JP 05-131696) in view of Onizuka et al. (JP-2879872) and Goto et al. (US 5,225,881).

With respect to claims 1 and 18, Konishi teaches an ink jet printer having a housing 1, an ink jet recording head 8 for printing on two sides of a record sheet (P) and a sheet feeding mechanism 6, 10 and 12 which feeds a portion of a printed sheet to a location outside of the housing along a substantially horizontal straight path or a sheet output tray 11 and feeds the sheet back into the housing for printing the other side of the sheet via a re-feeding path 13 as shown in Fig.1 of Konishi. Konishi does not teach the controller configured to control the sheet feeding mechanism for maintaining or delaying the feeding of the recording sheet for a predetermined time period to allow the ink drops printed on the first side of the sheet to dry before printing on the second side and to convey the sheet below the recording head and back to the recording head. Onizuka et al. teaches an inkjet recording apparatus having a controller 30 (Fig.7 of Onizuka et al.) which controls the sheet feeding mechanism so that the sheet is maintained or delayed in feeding a predetermined time period to allow the ink drops printed on the first side to dry before printing on the second side of the sheet (Onizuka et al., Fig.8 and pages 13 and 14, the paragraphs [0033] and [0034]). Goto et al. teaches an image recording apparatus having a housing 100, a paper source or an input cassette or tray 4a, a sheet feeding mechanism 6a,7a,8,9,20,21 and 14(c,d,e) which conveys the recording sheet below an image recording station 3 and back to the image recording station as shown in Fig.2 of Goto et al. In view of the teaching of Onizuka et al. and Goto et al., it would have been obvious to one of ordinary skill in the art to modify the inkjet recording apparatus of Konishi by providing the controller which keeps the sheet which is printed on the first side for a predetermined time period to dry the ink before printing the second side as taught by Onizuka et al. and the feeding mechanism as taught

by Goto et al. to improve the efficiency and print quality of printing two sides of a recording sheet

With respect to claims 3, 5 and 20, Konishi teaches an ink jet printer having substantially the structure as recited. See the explanation of Konishi above. Additionally, Konishi teaches the conventional use of a pick up roller 3 and a tray 4 for holding a sheet (P) as shown in Fig.1. Konishi does not teach the sheet ejection path having a switchback mechanism and the controller configured to control the sheet feeding mechanism for maintaining or delaying the feeding of the recording sheet for a predetermined time period to allow the ink drops printed on the first side of the sheet to dry before printing on the second side and to convey the sheet below the recording head and back to the recording head. Goto et al. teaches an image recording apparatus having a housing 100 (Goto et al., Fig.2), a paper source or an input cassette or tray 4a, a first sheet transportation path 10 having transport rollers 6a,7a,8,9, ejection rollers (no numeral reference) and a second sheet ejection path 13a having sheet feeding mechanism and a switchback mechanism 35a, 35b (Goto et al., Figs.5-8), or 62 (Goto et al., Figs.11-13c) that transport the recording sheet below an image recording station 3 and back to the image recording station for printing the second side of the recording sheet. Onizuka et al. teaches an inkjet recording apparatus having a controller 30 (Fig.7 of Onizuka et al.) which controls the sheet feeding mechanism so that the sheet is maintained or delayed in feeding a predetermined time period to allow the ink drops printed on the first side to dry before printing on the second side of the sheet (Onizuka et al., Fig.8 and pages 13 and 14, the paragraphs [0033] and [0034]). In view of the teachings of Goto et al. and Onizuka et al., it would have been obvious to one of ordinary skill in the art to modify the inkjet recording apparatus of Konishi by providing the

second sheet ejection path as taught by Goto et al. and the controller which keeps the sheet which is printed on the first side for a predetermined time period to dry the ink on the first side before printing the second side as taught by Onizuka et al. for quickly feeding the one side printed sheet to the print head for printing the other side of the recording sheet. With respect to claims 19 and 21, the selection of a desired predetermined time period which varies depending the amount of ink that is printed on the recording sheet would be obvious through routine experimentation since the drying time of the printed sheet is depended on the surrounding temperature, humidity and the type of ink being used in order to get best possible print quality.

Claims 6-12 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Konishi, Onizuka et al., Goto et al. as applied to claims 1,3, 5 and 18-21 above, and further in view of Kulpa (US 5,560,595).

With respect to claims 6-9, 11 and 12, Konishi, Onizuka et al., Goto et al. teach all that is claimed, except the use of sensor that senses a sheet located between the print head and the ejection roller. Kulpa teaches the conventional use of a sensor 29 that sensor a sheet between the print head 19 and the rejection roller 113 as shown in Fig.1 of Kulpa. In view of the teaching of Kulpa, it would have been obvious to one of ordinary skill in the art to modify the recording apparatus of Konishi, Onizuka et al., Goto et al. by providing the sensor located between the print head and the ejection roller as taught by Kulpa to permit more precise control the feeding of a recording sheet during printing operation of one side or two sides of a recording sheet. With respect to claim 10, the selection of a desired predetermined time period which varies depending the amount of in on the recording sheet would be obvious through routine experimentation with respect to the surrounding temperature, humidity and the type of ink being used in order to get best possible print quality.



***Response to Arguments***

Applicants' arguments filed on December 1, 2005 have been fully considered but they are not persuasive in view of the new ground(s) of rejections.

***Response to Arguments***

Applicants' arguments filed on February 02, 2004 have been fully considered but they are not persuasive of any error in view of the new ground(s) of rejection(s).

***Conclusion***

The patents to Kapp and Serizawa et al. are cited to show other structures having obvious similarities to the claimed structures.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

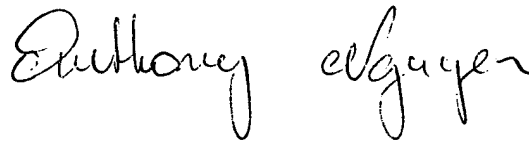
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (571) 272-2169.

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The examiner can normally be reached daily from 9 AM to 5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen, can be reached on (571) 272-2258.

The fax phone number for this Group is (571) 273-8300.

A handwritten signature in cursive script that reads "Anthony Nguyen".

Anthony Nguyen  
10/26/2006  
Patent Examiner  
Technology Center 2800